

Title (en)

PROCESSING SYSTEM, PROCESSING METHOD, AND PROCESSING PROGRAM

Title (de)

VERARBEITUNGSSYSTEM, VERARBEITUNGSVERFAHREN UND VERARBEITUNGSPROGRAMM

Title (fr)

SYSTÈME DE TRAITEMENT, PROCÉDÉ DE TRAITEMENT ET PROGRAMME DE TRAITEMENT

Publication

**EP 4220498 A4 20240619 (EN)**

Application

**EP 20955250 A 20200925**

Priority

JP 2020036394 W 20200925

Abstract (en)

[origin: EP4220498A1] A processing system (100) is a processing system performed by using an edge device (30) and a server device (20), in which the edge device (30) includes an inference unit (31) configured to extract a feature amount of processing target data by using a first model and execute inference processing on the processing target data based on the extracted feature amount, and a determination unit (32) configured to output an inference result by the inference unit (31) in a case where reliability of the inference result by the inference unit (31) exceeds a threshold, and output the feature amount of the processing target data to the server device (20) in a case where the reliability is equal to or less than the threshold, and the server device (20) includes an inference unit (21) configured to execute inference processing on the processing target data on the basis of the feature amount of the processing target data output from the edge device (30) by using a second model having higher inference accuracy than the first model.

IPC 8 full level

**G06N 20/00** (2019.01); **G06N 3/045** (2023.01); **G06N 3/0495** (2023.01)

CPC (source: EP)

**G06N 3/045** (2023.01); **G06N 3/0495** (2023.01); **G06N 3/0464** (2023.01)

Citation (search report)

- [X1] SHOHEI ENOMOTO ET AL: "Acceleration of Deep Learning Inference by Model Cascading", IEICE TECHNICAL REPORT, IEICE, JP, vol. 119, no. 481 (PRMU2019-98), 29 February 2020 (2020-02-29), pages 203 - 208, XP009537454, ISSN: 2432-6380
- [A] JONG HWAN KO ET AL: "Edge-Host Partitioning of Deep Neural Networks with Feature Space Encoding for Resource-Constrained Internet-of-Things Platforms", ARXIV.ORG, CORNELL UNIVERSITY LIBRARY, 201 OLIN LIBRARY CORNELL UNIVERSITY ITHACA, NY 14853, 12 February 2018 (2018-02-12), XP081220849
- See also references of WO 2022064656A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

**EP 4220498 A1 20230802**; **EP 4220498 A4 20240619**; CN 116194933 A 20230530; JP 7452679 B2 20240319; JP WO2022064656 A1 20220331; WO 2022064656 A1 20220331

DOCDB simple family (application)

**EP 20955250 A 20200925**; CN 202080105384 A 20200925; JP 2020036394 W 20200925; JP 2022551064 A 20200925